

**REMARKS**

This paper is being filed in response to the Office Action dated June 30, 2003 that was issued in connection with the above-identified patent application. Applicants also enclose herewith a Declaration Under 37 C.F.R. § 1.132, a Petition for an Extension of Time, and the fee required pursuant to 37 C.F.R. §1.17(a)(1). In addition, Applicants enclose herewith a Supplemental Information Disclosure Statement, a corresponding Form PTO-1449, copies of the cited documents, and the fee required pursuant to 37 C.F.R. §1.17(p) and §1.97(c)(2). Applicants respectfully request reconsideration of the instant application in view of the amendments and remarks presented herein.

Claims 2-7 are pending. Claims 2-7 have been cancelled herein without prejudice. Claims 8-22 have been added. New claims 8, 13, and 18 correspond to cancelled claims 2 and 6 and, therefore do not constitute new matter. New claims 9, 14, and 19 correspond to cancelled claim 3 and, therefore do not constitute new matter. New claims 10, 15, and 20 correspond to cancelled claim 4 and, therefore do not constitute new matter. New claims 11, 16, and 21 correspond to cancelled claim 5 and, therefore do not constitute new matter. New claims 12, 17, and 22 correspond to cancelled claim 7 and, therefore do not constitute new matter. Therefore, claims 8-22 will be pending upon entry of the instant Amendment.

Applicants have corrected minor typographical errors in the specification herein. These corrections would have been apparent to one skilled in the art and, therefore, do not constitute new matter.

As a preliminary matter, Applicants thank the Examiner for granting Applicant's Request for Continued Examination and withdrawing the finality of the Office Action dated December 9, 2002. Applicants also thank the Examiner for the courtesy of a telephone interview

conducted on September 3, 2003. During this telephonic interview, the Examiner requested that the term "biocide composition" in the claims be amended to "antibacterial composition" and "antifungal composition." Applicants have complied with this request by replacing the term "biocide composition" in the claims with the terms "antibacterial composition," "antifungal composition" and "antialgal composition." The Examiner also requested data supporting an anti-algal effect of compositions of the invention during that telephonic interview. Applicants are presently preparing a Declaration under 37 C.F.R. § 1.132 and will provide it to the Examiner in the near future.

#### **The Claims Are Patentable Over Hsu and Gembitskii**

Claims 2-7 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over the combination of U.S. Patent No. 5,278,178 issued to Hsu et al. on January 11, 1994 (hereinafter "Hsu") and U.S.S.R. Inventor's Certificate No. SU 1687261 issued to Gembitskii et al. on October 30, 1991 (hereinafter "Gembitskii"). The Examiner has alleged that Hsu teaches synergistic microbiocidal and biocidal compositions comprising 3-isothiazolone (ITO) mixtures and suggests combining two isothiazolones with other antimicrobial compounds to synergistically achieve more effective and broader control of microorganisms. The Examiner has also alleged that Gembitskii teaches that polyhexamethyleneguanidine gluconate (PHMG•Gluconate) is an active component of disinfecting solutions and that. The Examiner has further alleged that absent evidence of criticality, one of ordinary skill in the art would have expected any salt of polyhexamethyleneguanidine, including polyhexamethyleneguanidine phosphate (PHMG•H<sub>3</sub>PO<sub>4</sub>), would have had the same properties as PHMG•Gluconate. Thus,

the Examiner has alleged that it would have been obvious to one of ordinary skill in the art to combine ITO and PHMG•H<sub>3</sub>PO<sub>4</sub> as recited by the instant claims.

Applicants respectfully traverse this rejection and assert that the instantly claimed invention displays superior effectiveness over the compositions of Hsu and Gembitskii. Nothing in this or any other communication with the Patent and Trademark Office shall be construed as an admission by Applicants or Attorneys for Applicants that it would have been obvious to one of ordinary skill in the art to combine the ITO mixtures of Hsu and the PHMG•Gluconate of Gembitskii to arrive at the instantly claimed compositions comprising ITO and PHMG•H<sub>3</sub>PO<sub>4</sub>. An allegation of obviousness may be overcome by providing the Patent and Trademark Office with evidence of superior or unexpected results. *See* MPEP § 2144.09 (Rev. 1, February 2003), page 2100-153, right column.

Applicants respectfully invite the Examiner's attention to the Declaration enclosed herewith which shows that compositions having ITO and PHMG•H<sub>3</sub>PO<sub>4</sub> surprisingly outperformed compositions having ITO and PHMG•Gluconate. For example, a composition of the invention had a lower minimum inhibitory concentration than the comparative examples against *Penicillium citrinum*, *Proteus vulgaris*, *Candida albicans*, and *Aspergillus niger*. Applicants assert that Hsu and Gembitskii completely fail to teach or suggest these surprising results. With respect to claims 14-19, which recite "antifungal composition[s]," and claims 20-25, which recite "antialgal composition[s]," Applicants note that neither Hsu nor Gembitskii teach or suggest that PHMG•Gluconate has antifungal or antialgal activity. Therefore, Applicants respectfully request withdrawal of this rejection.

**The Claims Are Patentable Over Hsu, Gembitskii, and Toshimasa**

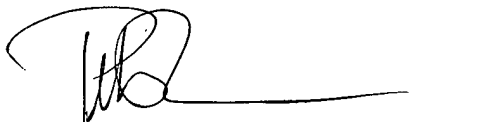
Claims 2-7 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over the combination of Hsu and Gembitskii in view of Japanese Patent Publication No. JP10175809 published on June 30, 1998 by Toshimasa et al. ("Toshimasa"). The Examiner has admitted that neither Hsu nor Gembitskii teaches a combination of ITOs and PHMG•H<sub>3</sub>PO<sub>4</sub>, but has alleged that Hsu suggests combining ITOs with other antimicrobials to yields a composition that is synergistically more effective more broadly controls microorganisms. The Examiner has further alleged that Toshimasa discloses industrial antimicrobial compositions comprising ITOs and polyhexamethylenebiguanidine hydrochloride (PHMBG•HCl). The Examiner has alleged that one of ordinary skill in the art would have expected PHMBG•HCl and PHMG•H<sub>3</sub>PO<sub>4</sub> to have similar properties. Thus, allegedly, it would have been obvious to a person of ordinary skill in the art to combine Hsu, Gembitskii, and Toshimasa to arrive at the claimed invention.

Applicants respectfully invite the Examiner's attention to the Declaration enclosed herewith which shows that compositions having ITO and PHMG•H<sub>3</sub>PO<sub>4</sub> surprisingly outperformed compositions having ITO and PHMBG•HCl. For example, a composition of the invention had a lower minimum inhibitory concentration than the comparative examples against *Penicillium citrinum*, *Proteus vulgaris*, and *Aspergillus niger*. Applicants assert that Hsu and Toshimasa completely fail to teach or suggest these surprising results. With respect to claims 13-17, which recite "antifungal composition[s]," and claims 18-22, which recite antialgal composition[s]," Applicants note that neither Hsu nor Toshimasa teach or suggest that PHMBG•HCl has antifungal or antialgal activity. Therefore, Applicants respectfully request withdrawal of this rejection.

Applicants enclose herewith the fees required under 37 C.F.R. §§ 1.16(b), 1.17(a)(1), and 1.17(p). Applicants do not believe that any additional fees are required with this paper. Nevertheless, the Commissioner is hereby authorized to charge any fees occasioned by this submission not otherwise enclosed herewith to Deposit Account No. 02-4377. Please credit any overpayment of fees associated with this filing to the above-identified deposit account. A duplicate of this page is enclosed.

Respectfully submitted,

BAKER BOTTS, L.L.P.



Neil P. Sirota  
PTO Reg. No. 38,306

Peter J. Shen  
PTO Reg. No. 52,217  
Attorneys for Applicants

Guy F. Birkenmeier  
PTO Reg. No. 52,622  
Agent for Applicants

BAKER BOTTS, L.L.P.  
30 Rockefeller Plaza  
New York, NY 10112  
(212) 408-2500

October 30, 2003

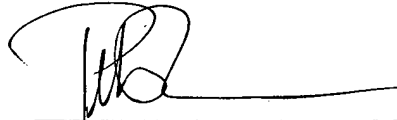
Enclosures

Declaration under 37 C.F.R. § 1.132  
Supplemental Information Disclosure Statement  
Form PTO-1449  
Copies of cited documents  
Petition for Extension of Time

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BAKER BOTTS, L.L.P.



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PTO Reg. No. 38,306

Peter J. Shen  
PTO Reg. No. 52,217  
Attorneys for Applicants

Guy F. Birkenmeier  
PTO Reg. No. 52,622  
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BAKER BOTTS, L.L.P.  
30 Rockefeller Plaza  
New York, NY 10112  
(212) 408-2500

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